

115TH CONGRESS  
2D SESSION

# S. 2200

---

## AN ACT

To reauthorize the National Integrated Drought Information System, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2   *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2       This Act may be cited as the “National Integrated  
3 Drought Information System Reauthorization Act of  
4 2018”.

5 **SEC. 2. NATIONAL INTEGRATED DROUGHT INFORMATION**  
6 **SYSTEM PROGRAM.**

7       (a) IN GENERAL.—Section 3 of the National Inte-  
8 grated Drought Information System Act of 2006 (15  
9 U.S.C. 313d) is amended—

10           (1) in subsection (b)—

11                   (A) in paragraph (1)(A), by striking “in  
12 order to make usable, reliable, and timely fore-  
13 casts of drought, including” and inserting “, in-  
14 cluding precipitation, soil moisture, and evapo-  
15 rative demand, in order to make usable, reli-  
16 able, and timely forecasts of drought and”;

17                   (B) in paragraph (3), by inserting “water-  
18 shed,” after “regional,”;

19                   (C) in paragraph (4)—

20                           (i) by inserting “, through interagency  
21 agreements” after “integrate”; and

22                           (ii) by inserting “information” after  
23 “warning”;

24                   (D) by amending paragraph (5) to read as  
25 follows:

1 “(5) utilize existing forecasting and assessment  
 2 programs and partnerships, including forecast com-  
 3 munication coordinators and cooperative institutes,  
 4 and improvements in seasonal precipitation and tem-  
 5 perature, subseasonal precipitation and temperature,  
 6 and low flow water prediction; and”; and

7 (E) in paragraph (6), by inserting “the  
 8 prediction,” after “relating to”;

9 (2) by redesignating subsections (c) through (e)  
 10 as subsections (d) through (f), respectively;

11 (3) by inserting after subsection (b) the fol-  
 12 lowing:

13 “(c) PARTNERSHIPS.—The National Integrated  
 14 Drought Information System may—

15 “(1) engage with the private sector to improve  
 16 drought monitoring, forecast, and communication if  
 17 the Under Secretary determines the partnership is  
 18 appropriate, cost-effective, and beneficial to the pub-  
 19 lic and decisionmakers described in subsection  
 20 (b)(2)(A);

21 “(2) facilitate the development of 1 or more  
 22 academic cooperative partnerships to assist with Na-  
 23 tional Integrated Drought Information System func-  
 24 tions; and

1 “(3) utilize and support, as appropriate, moni-  
 2 toring by citizen scientists, including by developing  
 3 best practices to facilitate maximum data integra-  
 4 tion.”;

5 (4) in subsection (d), as redesignated, by insert-  
 6 ing “and sustainment” after “development”; and

7 (5) by striking subsection (f), as redesignated,  
 8 and inserting the following:

9 “(f) SOIL MOISTURE.—Not later than 1 year after  
 10 the date of enactment of the National Integrated Drought  
 11 Information System Reauthorization Act of 2018, the  
 12 Under Secretary, acting through the National Integrated  
 13 Drought Information System, shall develop a strategy for  
 14 a national coordinated soil moisture monitoring network.”.

15 (b) AUTHORIZATION OF APPROPRIATIONS.—Section  
 16 4 of the National Integrated Drought Information System  
 17 Act of 2006 (15 U.S.C. 313d note) is amended to read  
 18 as follows:

19 **“SEC. 4. AUTHORIZATION OF APPROPRIATIONS.**

20 “There are authorized to be appropriated to carry out  
 21 this Act—

22 “(1) \$13,500,000 for fiscal year 2019;

23 “(2) \$13,750,000 for fiscal year 2020;

24 “(3) \$14,000,000 for fiscal year 2021;

25 “(4) \$14,250,000 for fiscal year 2022; and

1 “(5) \$14,500,000 for fiscal year 2023.”.

2 **SEC. 3. REAUTHORIZATION OF TITLE II OF THE WEATHER**  
 3 **RESEARCH AND FORECASTING INNOVATION**  
 4 **ACT OF 2017.**

5 (a) REAUTHORIZATION OF TITLE II OF THE WEATH-  
 6 ER RESEARCH AND FORECASTING INNOVATION ACT OF  
 7 2017.—Section 1762 of the Food Security Act of 1985  
 8 (15 U.S.C. 8521) is amended—

9 (1) by amending subsection (j) to read as fol-  
 10 lows:

11 “(j) AUTHORIZATION OF APPROPRIATIONS.—There  
 12 are authorized to be appropriated to carry out the activi-  
 13 ties under this section—

14 “(1) \$26,500,000 for fiscal year 2019;

15 “(2) \$27,000,000 for fiscal year 2020;

16 “(3) \$27,500,000 for fiscal year 2021;

17 “(4) \$28,000,000 for fiscal year 2022; and

18 “(5) \$28,500,000 for fiscal year 2023.”; and

19 (2) by adding at the end the following:

20 “(k) DERIVATION OF FUNDS.—Amounts made avail-  
 21 able to carry out this section shall be derived from  
 22 amounts appropriated or otherwise made available to the  
 23 National Weather Service.”.

24 (b) UNITED STATES WEATHER RESEARCH AND  
 25 FORECASTING IMPROVEMENT.—Section 110 of the

1 Weather Research and Forecasting Innovation Act of  
2 2017 (15 U.S.C. 8519) is amended to read as follows:

3 **“SEC. 110. AUTHORIZATION OF APPROPRIATIONS.**

4 “(a) IN GENERAL.—There are authorized to be ap-  
5 propriated to the Office of Oceanic and Atmospheric Re-  
6 search to carry out this title—

7 “(1) \$136,516,000 for fiscal year 2019, of  
8 which—

9 “(A) \$85,758,000 is authorized for weath-  
10 er laboratories and cooperative institutes;

11 “(B) \$30,758,000 is authorized for weath-  
12 er and air chemistry research programs; and

13 “(C) \$20,000,000 is authorized for the  
14 joint technology transfer initiative described in  
15 section 102(b)(4);

16 “(2) \$148,154,000 for fiscal year 2020, of  
17 which—

18 “(A) \$87,258,000 is authorized for weath-  
19 er laboratories and cooperative institutes;

20 “(B) \$40,896,000 is authorized for weath-  
21 er and air chemistry research programs; and

22 “(C) \$20,000,000 is authorized for the  
23 joint technology transfer initiative described in  
24 section 102(b)(4);

1           “(3) \$150,154,000 for fiscal year 2021, of  
2       which—

3           “(A) \$88,758,000 is authorized for weath-  
4       er laboratories and cooperative institutes;

5           “(B) \$41,396,000 is authorized for weath-  
6       er and air chemistry research programs; and

7           “(C) \$20,000,000 is authorized for the  
8       joint technology transfer initiative described in  
9       section 102(b)(4);

10          “(4) \$152,154,000 for fiscal year 2022, of  
11       which—

12          “(A) \$90,258,000 is authorized for weath-  
13       er laboratories and cooperative institutes;

14          “(B) \$41,896,000 is authorized for weath-  
15       er and air chemistry research programs; and

16          “(C) \$20,000,000 is authorized for the  
17       joint technology transfer initiative described in  
18       section 102(b)(4); and

19          “(5) \$154,154,000 for fiscal year 2023, of  
20       which—

21          “(A) \$91,758,000 is authorized for weath-  
22       er laboratories and cooperative institutes;

23          “(B) \$42,396,000 is authorized for weath-  
24       er and air chemistry research programs; and

1           “(C) \$20,000,000 is authorized for the  
2           joint technology transfer initiative described in  
3           section 102(b)(4).

4           “(b) LIMITATION.—No additional funds are author-  
5 ized to carry out this title and the amendments made by  
6 this title.”.

7 **SEC. 4. EARTH PREDICTION INNOVATION CENTER.**

8           (a) WEATHER RESEARCH AND FORECASTING INNO-  
9 VATION.—Section 102(b) of the Weather Research and  
10 Forecasting Innovation Act of 2017 (15 U.S.C. 8512(b))  
11 is amended by adding at the end the following:

12           “(4) Advancing weather modeling skill, reclaim-  
13 ing and maintaining international leadership in the  
14 area of numerical weather prediction, and improving  
15 the transition of research into operations by—

16           “(A) leveraging the weather enterprise to  
17 provide expertise on removing barriers to im-  
18 proving numerical weather prediction;

19           “(B) enabling scientists and engineers to  
20 effectively collaborate in areas important for  
21 improving operational global numerical weather  
22 prediction skill, including model development,  
23 data assimilation techniques, systems architec-  
24 ture integration, and computational efficiencies;



1 “(C) strengthening the National Oceanic  
 2 and Atmospheric Administration’s ability to un-  
 3 dertake research projects in pursuit of substan-  
 4 tial advancements in weather forecast skill;

5 “(D) utilizing and leverage existing re-  
 6 sources across the National Oceanic and Atmos-  
 7 pheric Administration enterprise; and

8 “(E) creating a community global weather  
 9 research modeling system that—

10 “(i) is accessible by the public;

11 “(ii) meets basic end-user require-  
 12 ments for running on public computers  
 13 and networks located outside of secure Na-  
 14 tional Oceanic and Atmospheric Adminis-  
 15 tration information and technology sys-  
 16 tems; and

17 “(iii) utilizes, whenever appropriate  
 18 and cost-effective, innovative strategies and  
 19 methods, including cloud-based computing  
 20 capabilities, for hosting and management  
 21 of part or all of the system described in  
 22 this subsection.”.

23 (b) UNITED STATES WEATHER RESEARCH PRO-  
 24 GRAM.—Section 108(a) of the National Oceanic and At-

1 mospheric Administration Authorization Act of 1992 (15  
2 U.S.C. 8520(a)) is amended—

3 (1) in paragraph (10), by striking “; and” and  
4 inserting a semi-colon;

5 (2) in paragraph (11), by striking the period at  
6 the end and inserting “; and”; and

7 (3) by adding at the end the following:

8 “(12) carry out the activities of the Earth Pre-  
9 diction Innovation Center as described in section  
10 102(b)(2) of the Weather Research and Forecasting  
11 Innovation Act of 2017 (15 U.S.C. 8512(b)(2)).”.

12 **SEC. 5. COMPUTING RESOURCES PRIORITIZATION.**

13 (a) IN GENERAL.—Section 108 of the Weather Re-  
14 search and Forecasting Innovation Act of 2017 (15 U.S.C.  
15 8518) is amended to read as follows:

16 **“SEC. 108. COMPUTING RESOURCE EFFICIENCY IMPROVE-  
17 MENT AND ANNUAL REPORT.**

18 “(a) COMPUTING RESOURCES.—

19 “(1) IN GENERAL.—In acquiring computing ca-  
20 pabilities, including high performance computing  
21 technologies and supercomputing technologies, that  
22 enable the National Oceanic and Atmospheric Ad-  
23 ministration to meet its mission requirements, the  
24 Under Secretary shall, when appropriate and cost-ef-  
25 fective, assess and prioritize options for entering into

1 multi-year lease agreements for computing capabili-  
2 ties over options for purchasing computing hardware  
3 outright.

4 “(2) ACQUISITION.—In carrying out the re-  
5 quirements of paragraph (1), the Under Secretary  
6 shall structure multi-year lease agreements in such  
7 a manner that the expiration of the lease is set for  
8 a date on or around—

9 “(A) the expected degradation point of the  
10 computing resources; or

11 “(B) the point at which significantly in-  
12 creased computing capabilities are expected to  
13 be available for lease.

14 “(3) PILOT PROGRAMS.—

15 “(A) IN GENERAL.—In order to more effi-  
16 ciently and effectively meet the mission require-  
17 ments of the National Oceanic and Atmospheric  
18 Administration, the Under Secretary may cre-  
19 ate 1 or more pilot programs for assessing new  
20 or innovative information and technology capa-  
21 bilities and services.

22 “(B) PROGRAM REQUIREMENTS.—Any  
23 program created under paragraph (3) shall as-  
24 sess only those capabilities and services that—

1 “(i) meet or exceed the standards and  
2 requirements of the National Oceanic and  
3 Atmospheric Administration, including for  
4 processing speed, cybersecurity, and overall  
5 reliability; or

6 “(ii) meet or exceed, or are expected  
7 to meet or exceed, the performance of simi-  
8 lar, in-house information and technology  
9 capabilities and services that are owned  
10 and operated by the National Oceanic and  
11 Atmospheric Administration prior to the  
12 establishment of the pilot program.

13 “(C) AUTHORIZATION OF APPROPRIA-  
14 TIONS.—There is authorized to be appropriated,  
15 out of funds appropriated to the National Envi-  
16 ronmental Satellite, Data, and Information  
17 Service, to carry out this paragraph \$5,000,000  
18 for fiscal year 2019, \$10,000,000 for fiscal year  
19 2020, and \$5,000,000 for each of fiscal years  
20 2021 through 2023, to remain available until  
21 expended.

22 “(b) REPORTS.—Not later than 1 year after the date  
23 of enactment of the National Integrated Drought Informa-  
24 tion System Reauthorization Act of 2018, and triennially  
25 thereafter until the date that is 6 years after the date on

1 which the first report is submitted, the Under Secretary,  
2 acting through the Chief Information Officer of the Na-  
3 tional Oceanic and Atmospheric Administration and in co-  
4 ordination with the Assistant Administrator for Oceanic  
5 and Atmospheric Research and the Director of the Na-  
6 tional Weather Service, shall produce and make publicly  
7 available a report that explains how the Under Secretary  
8 intends—

9           “(1) to continually support upgrades to pursue  
10       the fastest, most powerful, and cost-effective high  
11       performance computing technologies in support of  
12       its weather prediction mission;

13           “(2) to ensure a balance between the research  
14       to operations requirements to develop the next gen-  
15       eration of regional and global models as well as  
16       highly reliable operational models;

17           “(3) to take advantage of advanced develop-  
18       ment concepts to, as appropriate, make next genera-  
19       tion weather prediction models available in beta-test  
20       mode to operational forecasters, the United States  
21       weather industry, and partners in academic and  
22       Government research;

23           “(4) to use existing computing resources to im-  
24       prove advanced research and operational weather  
25       prediction;

1 “(5) to utilize non-Federal contracts to obtain  
 2 the necessary expertise for advanced weather com-  
 3 puting, if appropriate;

4 “(6) to utilize cloud computing; and

5 “(7) to create a long-term strategy to transition  
 6 the programming language of weather model code to  
 7 current and broadly-used coding language.”.

8 (b) TABLE OF CONTENTS.—Section 1(b) of the  
 9 Weather Research and Forecasting Innovation Act of  
 10 2017 (Public Law 115–25; 131 Stat. 91) is amended by  
 11 striking the item relating to section 108 and inserting the  
 12 following:

“Sec. 108. Computing resource efficiency improvement and annual report.”.

13 **SEC. 6. SATELLITE ARCHITECTURE PLANNING.**

14 Section 301 of the Weather Research and Fore-  
 15 casting Innovation Act of 2017 (15 U.S.C. 8531) is  
 16 amended by adding at the end the following:

17 “(c) NEXT GENERATION SATELLITE ARCHITEC-  
 18 TURE.—

19 “(1) IN GENERAL.—The Under Secretary shall  
 20 analyze, test, and plan the procurement of future  
 21 data sources and satellite architectures, including re-  
 22 spective ground system elements, identified in the  
 23 National Oceanic and Atmospheric Administration’s  
 24 Satellite Observing System Architecture Study  
 25 that—

1 “(A) lower the cost of observations used to  
2 meet the National Oceanic and Atmospheric  
3 Administration’s mission requirements;

4 “(B) disaggregate current satellite sys-  
5 tems, where appropriate;

6 “(C) include new, value-adding techno-  
7 logical advancements; and

8 “(D) improve weather forecasting and pre-  
9 dictions.

10 “(2) QUANTITATIVE ASSESSMENTS AND PART-  
11 NERSHIP AUTHORITY.—In meeting the requirements  
12 described in paragraph (1), the Under Secretary—

13 “(A) may partner with the commercial and  
14 academic sectors, non-governmental and not-  
15 for-profit organizations, and other Federal  
16 agencies; and

17 “(B) shall, consistent with section 107 of  
18 this Act, undertake quantitative assessments for  
19 objective analyses, as the Under Secretary con-  
20 siders appropriate, to evaluate relative value  
21 and benefits of future data sources and satellite  
22 architectures described in paragraph (1).

23 “(d) ADDITIONAL FORMS OF TRANSACTION AUTHOR-  
24 IZED.—

1           “(1) IN GENERAL.—Subject to paragraph (2),  
2       in order to enhance the effectiveness of data and  
3       satellite systems used by the National Oceanic and  
4       Atmospheric Administration to meet its missions,  
5       the Under Secretary may enter into and perform  
6       such transaction agreements on such terms as the  
7       Under Secretary considers appropriate to carry out  
8       basic, applied, and advanced research projects to  
9       meet the objectives described in subparagraphs (A)  
10      through (D) subsection (c)(1).

11           “(2) METHOD AND SCOPE.—

12           “(A) IN GENERAL.—A transaction agree-  
13      ment under paragraph (1) shall be limited to  
14      research and development activities.

15           “(B) PERMISSIBLE USES.—A transaction  
16      agreement under paragraph (1) may be used—

17           “(i) for the construction, use, oper-  
18      ation, or procurement of new, improved,  
19      innovative, or value-adding satellites, in-  
20      strumentation, ground stations, and data;

21           “(ii) to make determinations on how  
22      to best use existing or planned data, sys-  
23      tems, and assets of the National Oceanic  
24      and Atmospheric Administration; and



1                   “(iii) only when the objectives of the  
2                   National Oceanic and Atmospheric Admin-  
3                   istration cannot be met using a cooperative  
4                   research and development agreement,  
5                   grants procurement contract, or coopera-  
6                   tive agreement.

7                   “(3) TERMINATION OF EFFECTIVENESS.—The  
8                   authority provided in this subsection terminates ef-  
9                   fective September 30, 2023.

10                  “(e) TRANSPARENCY.—Not later than 60 days after  
11 the date that a transaction agreement is made under sub-  
12 section (d), the Under Secretary shall make publicly avail-  
13 able, in a searchable format, on the website of the Na-  
14 tional Oceanic and Atmospheric Administration all uses  
15 of the authority under subsection (d), including an esti-  
16 mate of committed National Oceanic and Atmospheric Ad-  
17 ministration resources and the expected benefits to Na-  
18 tional Oceanic and Atmospheric Administration objectives  
19 for the transaction agreement, with appropriate redactions  
20 for proprietary, sensitive, or classified information.

21                  “(f) REPORTS.—

22                   “(1) IN GENERAL.—Not later than 90 days  
23 after September 30 of each fiscal year through Sep-  
24 tember 30, 2023, the Under Secretary shall submit  
25 to the Committee on Commerce, Science, and Trans-

1 portation of the Senate and the Committee on  
 2 Science, Space, and Technology of the House of  
 3 Representatives a report on the use of additional  
 4 transaction authority by the National Oceanic and  
 5 Atmospheric Administration during the previous fis-  
 6 cal year.

7 “(2) CONTENTS.—Each report shall include—

8 “(A) for each transaction agreement in ef-  
 9 fect during the fiscal year covered by the re-  
 10 port—

11 “(i) an indication of whether the  
 12 transaction agreement is a reimbursable,  
 13 non-reimbursable, or funded agreement;

14 “(ii) a description of—

15 “(I) the subject and terms;

16 “(II) the parties;

17 “(III) the responsible National  
 18 Oceanic and Atmospheric Administra-  
 19 tion line office;

20 “(IV) the value;

21 “(V) the extent of the cost shar-  
 22 ing among Federal Government and  
 23 non-Federal sources;

24 “(VI) the duration or schedule;

25 and

1 “(VII) all milestones;

2 “(iii) an indication of whether the  
3 transaction agreement was renewed during  
4 the previous fiscal year;

5 “(iv) the technology areas in which re-  
6 search projects were conducted under that  
7 agreement;

8 “(v) the extent to which the use of  
9 that agreement—

10 “(I) has contributed to a broad-  
11 ening of the technology and industrial  
12 base available for meeting National  
13 Oceanic and Atmospheric Administra-  
14 tion needs; and

15 “(II) has fostered within the  
16 technology and industrial base new re-  
17 lationships and practices that support  
18 the United States; and

19 “(vi) the total value received by the  
20 Federal Government under that agreement  
21 for that fiscal year; and

22 “(B) a list of all anticipated reimbursable,  
23 non-reimbursable, and funded transaction  
24 agreements for the upcoming fiscal year.

1       “(g) RULE OF CONSTRUCTION.—Nothing in this sec-  
 2 tion may be construed as limiting the authority of the Na-  
 3 tional Oceanic and Atmospheric Administration to use co-  
 4 operative research and development agreements, grants,  
 5 procurement contracts, or cooperative agreements.”.

6   **SEC. 7. INTEGRATION OF OCEAN AND COASTAL DATA FROM**  
 7                   **THE INTEGRATED OCEAN OBSERVING SYS-**  
 8                   **TEM.**

9       (a) IN GENERAL.—Section 301(a)(2) of the Weather  
 10 Research and Forecasting Innovation Act of 2017 (15  
 11 U.S.C. 8531(a)(2)) is amended—

12           (1) in subparagraph (A), by striking “; and”  
 13 and inserting a semicolon;

14           (2) in subparagraph (B), by striking the period  
 15 at the end and inserting “; and”; and

16           (3) by adding at the end the following:

17           “(C) support increasing use of autono-  
 18 mous, mobile surface, sub-surface, and sub-  
 19 marine vehicle ocean and fresh water sensor  
 20 systems and the infrastructure necessary to  
 21 share and analyze these data in real-time and  
 22 feed them into predictive early warning sys-  
 23 tems.”.

24       (b) COMMERCIAL WEATHER DATA; AUTHORIZATION  
 25 OF APPROPRIATIONS.—Section 302(c)(3) of the Weather

1 Research and Forecasting Innovation Act of 2017 (15  
2 U.S.C. 8532(c)(3)) is amended—

3 (1) by striking “2017 through 2020” and in-  
4 serting “2019 through 2023”; and

5 (2) by inserting “the” before “National”.

6 **SEC. 8. IMPROVEMENTS TO COOPERATIVE OBSERVER PRO-**  
7 **GRAM OF NATIONAL WEATHER SERVICE.**

8 (a) IN GENERAL.—The Under Secretary of Com-  
9 merce for Oceans and Atmosphere, acting through the Na-  
10 tional Weather Service, shall improve the Cooperative Ob-  
11 server Program by—

12 (1) providing support to—

13 (A) State-coordinated programs relating to  
14 the Program; and

15 (B) States and regions where observations  
16 provided through the Program are scarce;

17 (2) working with State weather service head-  
18 quarters to increase participation in the Program  
19 and to add stations in States and regions described  
20 in paragraph (1)(B);

21 (3) where feasible, ensuring that data streams  
22 from stations that have been contributing data to  
23 the Program for more than 50 years are maintained  
24 and continually staffed by volunteers;

1           (4) prioritizing the recruitment of new volun-  
2       teers for the Program;

3           (5) ensuring that opportunities exist for auto-  
4       mated reporting to lessen the burden on volunteers  
5       to collect and report data by hand; and

6           (6) ensuring that integrated reporting is avail-  
7       able for qualitative observations that cannot be auto-  
8       mated, such as drought conditions, snow observa-  
9       tions, and hazardous weather events, to ensure that  
10      volunteers in the Program can report and upload ob-  
11      servations quickly and easily.

12      (b) COORDINATION WITH STATES AND REGIONS.—  
13      Not less frequently than every 180 days, the National  
14      Weather Service shall coordinate with State and regional  
15      offices with respect to the status of Cooperative Observer  
16      Program stations.

17      (c) COORDINATION WITH FEDERAL AGENCIES.—The  
18      National Weather Service shall coordinate with other Fed-  
19      eral agencies, including the Forest Service, the Depart-  
20      ment of Agriculture, and the United States Geological  
21      Survey, to leverage opportunities to grow the Cooperative  
22      Observer Program network and to more effectively use ex-  
23      isting infrastructure, weather stations, and staff of the  
24      Program.

1 **SEC. 9. HARMFUL ALGAL BLOOM AND HYPOXIA RESEARCH**  
 2 **AND CONTROL.**

3 (a) **SHORT TITLE.**—This section may be cited as the  
 4 “Harmful Algal Bloom and Hypoxia Research and Control  
 5 Amendments Act of 2017”.

6 (b) **REFERENCES TO THE HARMFUL ALGAL BLOOM**  
 7 **AND HYPOXIA RESEARCH AND CONTROL ACT OF 1998.**—  
 8 Except as otherwise expressly provided, wherever in this  
 9 section an amendment or repeal is expressed in terms of  
 10 an amendment to, or repeal of, a section or other provi-  
 11 sion, the reference shall be considered to be made to a  
 12 section or other provision of the Harmful Algal Bloom and  
 13 Hypoxia Research and Control Act of 1998 (33 U.S.C.  
 14 4001 et seq.).

15 (c) **INTER-AGENCY TASK FORCE.**—Section 603(a)  
 16 (33 U.S.C. 4001(a)) is amended—

17 (1) in paragraph (12), by striking “and” at the  
 18 end;

19 (2) by redesignating paragraph (13) as para-  
 20 graph (14); and

21 (3) by inserting after paragraph (12) the fol-  
 22 lowing:

23 “(13) the Army Corps of Engineers; and”.

24 (d) **SCIENTIFIC ASSESSMENTS OF FRESHWATER**  
 25 **HARMFUL ALGAL BLOOMS.**—Section 603 (33 U.S.C.  
 26 4001) is amended—

1           (1) by striking subsection (f);

2           (2) by redesignating subsections (g), (h), (i),  
3       and (j) as subsections (f), (g), (h), and (i), respec-  
4       tively; and

5           (3) by amending subsection (g) to read as fol-  
6       lows:

7       “(g) SCIENTIFIC ASSESSMENTS OF MARINE AND  
8       FRESHWATER HARMFUL ALGAL BLOOMS.—Not less than  
9       once every 5 years the Task Force shall complete and sub-  
10      mit to Congress a scientific assessment of harmful algal  
11      blooms in United States coastal waters and freshwater  
12      systems. Each assessment shall examine both marine and  
13      freshwater harmful algal blooms, including those in the  
14      Great Lakes and upper reaches of estuaries, those in  
15      freshwater lakes and rivers, and those that originate in  
16      freshwater lakes or rivers and migrate to coastal waters.”.

17       (e) NATIONAL HARMFUL ALGAL BLOOM AND HY-  
18      POXIA PROGRAM.—

19           (1) PROGRAM DUTIES.—Section 603A(e) (33  
20      U.S.C. 4002(e)) is amended—

21           (A) in paragraph (1), by inserting “, in-  
22       cluding to local and regional stakeholders  
23       through the establishment and maintenance of  
24       a publicly accessible Internet website that pro-



vides information as to Program activities completed under this section” after “Program”;

(B) in paragraph (3)—

(i) in subparagraph (B), by striking “; and” and inserting a semicolon;

(ii) in subparagraph (C), by inserting “and” after the semicolon at the end; and

(iii) by adding at the end the following:

“(D) to accelerate the utilization of effective methods of intervention and mitigation to reduce the frequency, severity, and impacts of harmful algal bloom and hypoxia events;”;

(C) in paragraph (4), by striking “and work cooperatively with” and inserting “, and work cooperatively to provide technical assistance to,”; and

(D) in paragraph (7)—

(i) by inserting “and extension” after “existing education”; and

(ii) by inserting “intervention,” after “awareness of the causes, impacts,”.

(2) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ACTIVITIES.—Section 603A(f) (33 U.S.C. 4002(f)) is amended—

1 (A) in paragraph (3), by inserting “, which  
2 shall include unmanned systems,” after “infra-  
3 structure”;

4 (B) in paragraph (5), by striking “and” at  
5 the end;

6 (C) in paragraph (6)(C), by striking the  
7 period at the end and inserting a semicolon;  
8 and

9 (D) by adding at the end the following:

10 “(7) use cost effective methods in carrying out  
11 this Act; and

12 “(8) develop contingency plans for the long-  
13 term monitoring of hypoxia.”.

14 (f) CONSULTATION REQUIRED.—Section 102 of the  
15 Harmful Algal Bloom and Hypoxia Amendments Act of  
16 2004 (33 U.S.C. 4001a) is amended by striking “the  
17 amendments made by this title” and inserting “the Harm-  
18 ful Algal Bloom and Hypoxia Research and Control Act  
19 of 1998”.

20 (g) HYPOXIA OR HARMFUL ALGAL BLOOM OF NA-  
21 TIONAL SIGNIFICANCE.—

22 (1) RELIEF.—

23 (A) IN GENERAL.—Upon a determination  
24 under paragraph (2) that there is an event of  
25 national significance, the appropriate Federal

1 official is authorized to make sums available to  
2 the affected State or local government for the  
3 purposes of assessing and mitigating the detri-  
4 mental environmental, economic, subsistence  
5 use, and public health effects of the event of  
6 national significance.

7 (B) FEDERAL SHARE.—The Federal share  
8 of the cost of any activity carried out under this  
9 paragraph for the purposes described in sub-  
10 paragraph (A) may not exceed 50 percent of  
11 the cost of that activity.

12 (C) DONATIONS.—Notwithstanding any  
13 other provision of law, an appropriate Federal  
14 official may accept donations of funds, services,  
15 facilities, materials, or equipment that the ap-  
16 propriate Federal official considers necessary  
17 for the purposes described in subparagraph (A).  
18 Any funds donated to an appropriate Federal  
19 official under this paragraph may be expended  
20 without further appropriation and without fiscal  
21 year limitation.

22 (2) DETERMINATIONS.—

23 (A) IN GENERAL.—At the discretion of an  
24 appropriate Federal official, or at the request of  
25 the Governor of an affected State, an appro-

1        appropriate Federal official shall determine whether a  
 2        hypoxia or harmful algal bloom event is an  
 3        event of national significance.

4                (B) CONSIDERATIONS.—In making a de-  
 5        termination under subparagraph (A), the ap-  
 6        propriate Federal official shall consider the tox-  
 7        icity of the harmful algal bloom, the severity of  
 8        the hypoxia, its potential to spread, the eco-  
 9        nomic impact, the relative size in relation to the  
 10      past 5 occurrences of harmful algal blooms or  
 11      hypoxia events that occur on a recurrent or an-  
 12      nual basis, and the geographic scope, including  
 13      the potential to affect several municipalities, to  
 14      affect more than 1 State, or to cross an inter-  
 15      national boundary.

16      (3) DEFINITIONS.—In this subsection:

17              (A) APPROPRIATE FEDERAL OFFICIAL.—  
 18      The term “appropriate Federal official”  
 19      means—

20              (i) in the case of a marine or coastal  
 21              hypoxia or harmful algal bloom event, the  
 22              Under Secretary of Commerce for Oceans  
 23              and Atmosphere; and

24              (ii) in the case of a freshwater hy-  
 25              poxia or harmful algal bloom event, the

1 Administrator of the Environmental Pro-  
2 tection Agency.

3 (B) EVENT OF NATIONAL SIGNIFICANCE.—  
4 The term “event of national significance”  
5 means a hypoxia or harmful algal bloom event  
6 that has had or will likely have a significant  
7 detrimental environmental, economic, subsist-  
8 ence use, or public health impact on an affected  
9 State.

10 (C) HYPOXIA OR HARMFUL ALGAL BLOOM  
11 EVENT.—The term “hypoxia or harmful algal  
12 bloom event” means the occurrence of hypoxia  
13 or a harmful algal bloom as a result of a nat-  
14 ural, anthropogenic, or undetermined cause.

15 (h) AUTHORIZATION OF APPROPRIATIONS.—Section  
16 609(a) (33 U.S.C. 4009(a)) is amended by inserting “,  
17 and \$20,500,000 for each of fiscal years 2019 through  
18 2023” before the period at the end.

Passed the Senate December 18, 2018.

Attest:

*Secretary.*

115<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# **S. 2200**

## **AN ACT**

To reauthorize the National Integrated Drought  
Information System, and for other purposes.